

**Notice of Allowability**

Application No.

09/725,983

Applicant(s)

FRASER ET AL.

Examiner

Qamrun Nahar

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 4/3/06.
2. ☒ The allowed claim(s) is/are 1-26, 28-34, 38-55 and 57-58, renumbered 1-53.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

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1. This action is in response to the amendment filed on 4/3/06.
2. The rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention to claims 1-34 and 38-58 is withdrawn in view of applicant's amendment and remarks/arguments.
3. The rejection under 35 U.S.C. 102(e) as being anticipated by Johnston (U.S. 6,189,142) to claims 1-4, 6-7, 9-13, 15, 17-23, 25-34, 38-41, 43-44, 46-50, 52 and 54-58 is withdrawn in view of applicant's amendment and remarks/arguments.
4. The rejection under 35 U.S.C. 103(a) as being unpatentable over Johnston (U.S. 6,189,142) in view of Levine (U.S. 6,349,406) to claims 5, 8, 14, 16, 24, 42, 45, 51 and 53 is withdrawn in view of applicant's amendment and remarks/arguments.
5. Claims 1, 19, 26, 31, 38 and 55 have been amended.
6. Claims 1, 19, 26, 31, 38, 39 and 55 have been amended, see Examiner's Amendment below.
7. Claims 27 and 56 have been canceled, see Examiner's Amendment below.
8. Claims 1-26, 28-34, 38-55 and 57-58 are pending.
9. Claims 1-26, 28-34, 38-55 and 57-58 are allowed, renumbered 1-53.

#### ***Drawings***

10. The drawings filed on 11/29/2000 are accepted by the Examiner.

### EXAMINER'S AMENDMENT

11. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rene A. Peryera (Reg. No. 45,800) on June 15, 2006.

The application has been amended as follows:

#### **In the Claims:**

Please cancel claims 27 and 56.

Please amend claims 1, 19, 26, 31, 38, 39 and 55 as follows:

1. (Currently Amended) A computerized method for translating source code into object code, comprising:

recognizing a history operator and a history operand in the source code, wherein the history operator and the history operand are programming-language constructs, the history operand representing a sequence of data associated with a data history of a history operand instance and the history operator representing a function that object code will perform on the data history associated with the history operand;

generating first object code that, when executed, saves [[a]] the data history

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associated with an instance of the history operand; and

generating second object code that, when executed, performs the history operator on the data history,

wherein the history operator is capable of being referenced in the source code.

19. (Currently Amended) A computer-readable storage medium containing computer-executable source code ~~[[,]] wherein the source code comprises~~ for performing steps comprising:

recognizing a history operator and a history operand in source code, wherein the history operator and the history operand are programming-language constructs, the history operand representing a sequence of data associated with a data history of a history operand instance and the history operator representing a function that object code will perform on the data history associated with the history operand;

[[a]] the history operand ~~to direct~~ directing a translator to generate first object code that, when executed, saves [[a]] the data history associated with an instance of the history operand; and

[[a]] the history operator ~~to direct~~ directing the translator to generate second object code that, when executed, performs the history operator on the data history,

wherein the history operator is capable of being referenced in the source code.

26. (Currently Amended) A computer-readable storage medium having computer-executable instructions for performing steps comprising:

~~recognizing a history operand in source code~~ recognizing a history operator and a

history operand in source code, wherein the history operator and the history operand are programming-language constructs, the history operand representing a sequence of data associated with a data history of a history operand instance and the history operator representing a function that object code will perform on the data history associated with the history operand;

finding at least one instance of the history operand in the source code in response to recognizing the history operand;

allocating storage; and

generating first object code associated with each instance, wherein the first object code, when executed, saves [[a]] the data history associated with the history operand in the storage[[,]]; and

generating second object code that, when executed, performs the history operator on the data history,

wherein the history operator is capable of being referenced in the source code.

27. (Canceled)

31. (Currently Amended) A computer system comprising:

a processor;

memory coupled to the processor, wherein the memory contains a translator for translating source code into object code, wherein the translator comprises instructions, wherein the instructions when executed on the processor comprise:

~~recognizing a history operand in the source code~~ recognizing a history operator and a history operand in the source code, wherein the history operator and the history operand are programming-language constructs, the history operand representing a sequence of data associated with a data history of a history operand instance and the history operator representing a function that object code will perform on the data history associated with the history operand, wherein the source code is contained in the memory;

in response to recognizing the history operand, finding at least one instance of the history operand in the source code;

allocating storage for ~~[[a]]~~ the data history associated with the history operand;

generating first object code associated with each instance, wherein the first object code, when executed, saves the data history associated with the history operand in the storage; and

generating second object code that, when executed, performs ~~[[a]]~~ the history operator on the data history,

wherein the history operator is capable of being referenced in the source code.

38. (Currently Amended) A computerized method for interpreting source code, comprising:

recognizing a history operator and a history operand in the source code, wherein the history operator and the history operand are programming-language constructs, the

history operand representing a sequence of data associated with a data history of a history operand instance and the history operator representing a function that object code will perform on the data history associated with the history operand;

saving ~~[[a]]~~ the data history associated with an instance of the history operand; and

performing the history operator on the data history,

wherein the history operator is capable of being referenced in the source code.

39. (Currently Amended) The method of claim 38, wherein saving the data history further comprises saving values assigned to a variable in the data history when the object code is executed.

55. (Currently Amended) A computer-readable storage medium having computer-executable instructions for performing steps comprising:

~~recognizing a history operand in source code, the history operand representing a sequence of data associated with the history of an operand instance~~ recognizing a history operator and a history operand in source code, wherein the history operator and the history operand are programming-language constructs, the history operand representing a sequence of data associated with a data history of a history operand instance and the history operator representing a function that object code will perform on the data history associated with the history operand;

finding at least one instance of the history operand in the source code in response to recognizing the history operand; ~~and~~

saving [[a]] the data history associated with each instance of the history operand~~[[,]]~~; and performing the history operator on the data history, wherein the history ~~operand~~ operator is capable of being referenced in the source code.

56. (Canceled)

- END -

### **REASONS FOR ALLOWANCE**

12. The following is an examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fail to teach, in combination with the other claimed limitations, recognizing a history operator and a history operand in the source code, wherein the history operator and the history operand are programming-language constructs, the history operand representing a sequence of data associated with a data history of a history operand instance and the history operator representing a function that object code will perform on the data history associated with the history operand as substantially recited in independent claims 1, 19, 26, 31, 38 and 55.

The closest cited prior arts, the combination of Johnston (U.S. 6,189,142) and Levine (U.S. 6,349,406) teaches a method for obtaining history data. However, the combination of Johnston (U.S. 6,189,142) and Levine (U.S. 6,349,406) fails to teach recognizing a history



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operator and a history operand in the source code, wherein the history operator and the history operand are programming-language constructs, the history operand representing a sequence of data associated with a data history of a history operand instance and the history operator representing a function that object code will perform on the data history associated with the history operand as substantially recited in independent claims 1, 19, 26, 31, 38 and 55; and as pointed out by the applicant's remarks/arguments on pg. 16, par. 3 to pg. 20, par. 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

13. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

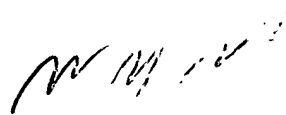
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Qamrun Nahar  
June 15, 2006



WEI ZHEN  
SUPERVISORY PATENT EXAMINER